

I WANT MY ITV[*]

Or: "Imagine Reverend Tilton inviting you to press your hand against the touch-sensitive screen. Feel the healing power of Jesus while you transmit your Visa number."

Or: "Who will be the Goebbels of interactive media?"

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I have been co-evolving an understanding of the relationship between participation, democracy, communication, and communication technologies for more than 25 years. A little bibliography at the end of this paper of some of the things I have written contains a partial record of that odyssey. The longer bibliography following mine contains some works, mainly recent, which others have written that I have found informative. I have also been directly involved in the production of a large number of audio-visual, radio, audiotape, film, television, and video programs in the US, Canada, and the UK, and for many years I taught courses on media literacy and portapak/camcorder video production. I watch a lot of television.

Here are some of the things I think I've learned:

1. What you know depends on the models and media you use to "know" it. Scholars who rely on reading to gain and writing to convey their knowledge of the world (especially scholars who do so in only one language) live in a very restricted world indeed. While some scholars also and a few mainly rely instead on mathematical models and media, while a fewer still rely also, though seldom mainly, on audio-visual forms, almost all scholars at the present time construct their world through the printed, and sometimes spoken, word. Of course, the world

constructed by, for example, a native speaker of English-only is substantially and importantly different from the world of a native speaker of Japanese-only, they both have more in common with each other than they do with the world constructed by an non-literate or semi-literate television viewer [Dator 1968 and 1977].

Moreover, in addition to academia, the most important governing systems of the modern world are almost entirely based on written words and the conflict over their meanings. I am referring to law, whether constitutional or statutory, the courts, and the bureaucracy [Katsch].

2. Human values and institutions reflect and influence human behavior and aspirations. Human behavior and aspirations are related to (determined by?) human biology, environment, culture, technology, and each person's individual experiences. A change in any one (or more) of these factors changes behavior and consciousness and challenges existing values and institutions. Humans, as tool-creating and using animals, have most typically changed these relationships by inventing and using new technologies. Thus, I consider new technologies to be the major agents of social change, and thus I try to survey sources which indicate new and emerging technologies, and speculate on their probable use and impact on the other relations [McHale, Dator 1982].

3. Historically, every new level of communication technology, especially, has destroyed the society in which it was invented and used, and served as the catalyst for the creation of new societies which then were destroyed by still newer communication technologies [McLuhan]. Specifically, this progression has been from pre-speech, to speech, to writing (but since most people did not know how to write, though writing had been invented, I favor the term "scribal"), to printing (ie., the invention and widespread use of the printing press and the invention of institutions, such as schools, representative government, and commerce, based on it), and then more recently, electro-chemical/electronic communication and, more futuristically, genetic engineering, and soon molecular engineering [Dator 1973b, 1977].

With each of these developments, the number of other humans a single human could contact, and the amount, quality, kind, etc., of data/information an individual could obtain/give has increased in what can at least metaphorically be considered a geometric rate.

Michael Marien, among others, is concerned with "infoglut" at present. He ain't seen nothing yet. For only one example, Jan Huston showed me a recent (April 8, 1991) report (B-240617) by the US General Accounting Office which says that "NASA missions will soon generate quantities of data never before encountered. Between 1990 and 2000, the volume of data archived will rise by over 5,600 percent.

[I]nformation systems now in place will be unable to" store, process, and retrieve this data which will amount to "more than 1,000 times the amount of information now stored in the Library of Congress." "Storing this daily supply of data would require about 10,000 reels of standard magnetic tape, which if stacked, would be nearly twice the height of the Washington Monument." And not only do no systems presently exist for storing this data, there is presently no way to archive it, much less to retrieve it, once it has been stored.

But they are working on it.

4. The possibility of and the desire for participation and democracy have changed as communication technologies (as well as other technologies) have changed. The evolution of speech arguably made it possible for early homosapiens to band together and destroy their contemporary sapiential kin (such as Neanderthal) who were intellectually and physically, and perhaps culturally superior, but linguistically-challenged [Diamond]. Without doubt, writing made civilization and imperialism possible. No antique empire existed without some kind of a writing system which was used to conquer, control, and "civilize" pre-literature tribes. Writing made it possible to colonize minds across time as well as well as space [Vide: The Bible].

The printing press made the production of books cheap and plentiful, thus destroying the monopoly of the Church by making Every Believer a Priest. By pointing out the discrepancy in various handcopied versions of the Bible, the printing press also made the editor and publisher more important than the writer.

The silent, solitary reader and writer, operating in the privacy of her own mind, able to pause over words and their meaning, to compare passages of decontextualized texts, to put together, take apart, and couple anew little trains of thought, made revolution possible and individualism necessary [Eisenstein].

5. Representative government was probably the best available social invention for solving the problem of how a small, homogenous, and geographically-isolated group of gentry could govern a vast new

country in their interest. How could they prevent undesirable elements (slaves, women, propertyless and lower class men) from taking over? And then, gradually over two hundred years, how could these undesirable elements be permitted to "participate" in and support the system without actually gaining control over it?

The answer was the American system of representative government, with its divisions and separations of power and checks and balances. It has proven to be an effective and durable social invention for those purposes [Dator, 1973a]. But, as long as it remains representative and bureaucratic, government in the US is definitely not democratic.

6. I don't want to go off on a definitional snark hunt now, but I have not said what I mean by "participation" and "democracy" so far.

Participation and democracy are certainly not the same thing. "Participation" is simply the act of "taking part" in something. There are at least two kinds of ways one can take part: voluntarily and by coercion.

The opposite of participation is alienation. And there are two kinds of alienation: The most frequently discussed is when one wants to participate and cannot. But equally alienating are situations when one doesn't want to participate, but must.

The importance of this distinction is clear when we consider the difference in the modern world of participation in governance vs. participation in the so-called market economy. It is very, very difficult for the average person to participate effectively in governance. It requires enormous and continuing resources of knowledge, time, and money, which most citizens do not have, to really have a say in governance today.

Indeed, some people argue that non-participation in government is a good thing. For example, in a recent article on low voter turnout in the US, the right-wing political commentator, George Will, wrote, "To be blunt, smaller usually means smarter" (and, he might have added, more wealthy and conservative). "Furthermore, low turnouts often are signs of social health. Low political energy can be a consequence of consensus about basics. When society is not riven by deep fissures about fundamental questions, non-voting may be passive consent, reflecting contentment. Many potential voters abstain because electoral outcomes do not determine the shape of their lives. Which is the way it should be. In a good society, politics is peripheral to happiness" [Will].

It is impossible to imagine that George Will would say the same thing about anyone who chose neither to have a job nor to go shopping every day because "participation in capitalistic economics is peripheral to happiness." Indeed, just you try not participating in the economic system in the US! No matter how much a person might choose to be self-sufficient, and provide for all her own economic needs, it is impossible. If you have any doubts, ask any Hawaiian activist who wishes to live off the land as her ancestors did for millenia before the white man came what her life is like as a consequence of that desire. The essence of capitalism, and one of the main achieved goals of Reaganomics, is the comodification of everything. The old popular song to the contrary notwithstanding, the best things in life aren't free any more. The non-voter may be a model citizen, but the non-consumer (even more than the non-employed) is a pariah.

Moreover, there are many ways to "take part." To that extent, I must agree with George Will: "Few voters vote? So what?" Voting in contemporary representative governments is largely symbolic, legitimating, and not effective, participation. It is hard for me to accept the argument that individuals who vote and otherwise utilize legal avenues of political participation today are actually controlling or even significantly influencing governmental decisions. They are "participating" but they are not "governing."

On the other hand, as I said in my opening remarks at this World Conference, even merely watching (staged or spontaneous, but nonetheless edited) political events on television is a kind of participation. From a "quantum politics" perspective, "merely watching" is a powerful mode of participation--certainly a necessary first step in any other participative acts. And in this "participative universe," all acts are participative [Dator 1983a, Becker, Gilder, Herbert, Pagels, Peat, Wheeler & Zurek, Wolf, Zohar].

I believe it was Woody Allen who pointed out that the secret of life is showing up. Someone else concluded that "They also serve who only stand and wait."

To return to definitions for a moment, I understand "democracy" to mean "rule by the people." By this definition, there are no democratic governments anywhere in the world presently, and very few, if any, democratic organizations of any kind. "Democracy" remains an ideal, or a futuristic, form of governance.

7. However, I believe true democracy--direct, citizen-controlled governance--can be achieved through the use of electronic technologies [Barber, Bezold & Olson, Glenn, Harris, Joseph, Masuda, Rezazadeh, Rogers, Tehranian, Toffler]. But I also acknowledge that those technologies can, presently most certainly are, and thus probably will be, used to decrease democracy, sometimes perhaps while actually increasing "participation" [Bagdikian, Ellul, Kellner, Linstone, Mitroff & Bennis, Schiller].

I have demonstrated elsewhere [Dator 1980, 1983b], and support the work of others who similarly labor, that it is possible and desirable to use and invent communication and other kinds of technologies to create truly democratic forms of governance for the first time [Hiltz & Turoff, Turoff, Slaton]. While I have no doubt that these technologies will increase participation, without our active imagination, design, and effort, I am certain that they will not be used to make democracy possible but rather merely to concentrate even more the power of the very few who control the present.

Indeed, even with our active imagination, design, and effort, these communication technologies might be used to enhance the power of the already powerful. What Bertram Gross calls "Friendly Fascism"--fascism (not in the form of a Hitler or a Stalin, but rather in the form of a Mickey Mouse, Ninja Turtles, and Ronald Reagan; and at a global level, as recent televised events in Eastern Europe, the Persian Gulf, and the former Soviet Union make clear)--is the most probable future, as it is the present, of participation and "democracy" for all of us [Gross, Schneider & Wallis]. Should this be called "quantum fascism?"

Benjamin Hourani recently conducted a kind of Delphi forecast on "computerization, organizations, and values," asking 407 experts to respond to thirty-four statements about the effect of computers on the organization of the work place. Statement twelve said, "Computerization will promote greater decentralization and democratic self-management in the work place." Fifty-five percent of those responding said that statement was either "inevitable," "highly probable," or "probable." Forty-five percent said it was "possible but not probable" or "not possible" [Hourani. See also Sproull & Kiesler, Tesler, Negroponte, Malone and Rockart]. I agree with the experts: it's a toss up.

8. To me, the most interesting emerging technological developments in communication, participation, and democracy are in the areas of visualization, dematerialization, artificial intelligence, artificial life, and virtual reality [Dator 1990 and 1989. Also Amato, Anderson, Blakemore

& Greenfield, Brand, Coates, Davies, Daviss, Dyson, Fishman, Friedhoff & Benzon, Gann, Graubard, Gregory, Hardison, Hellman, Herman, Helsel & Roth, Johnson & Brown, Jones, Joseph, Kroner, Krueger, Kurzweil, Langton, Lanier, Leebaert, McNally & Inayatullah, Montgomery, Moravec, Newstead, Peterson, Rheingold, Saenz, Smith, Stone, Thomas, Travis, Turkle, Waters, Yuki, and Zuboff].

Virtual Reality is not television; it's the telephone. And it's not the telephone either. It's a medium of expression more than of communication, like music or art. After all, most of what people communicate about concerns not just physical things, but people, ideas, feelings, events, which operate within social structures not in physical space.

Now that we can represent reality directly, why use symbols?

This is not electronic LSD. But it is a real good tool for getting people who might be a little Newtonian and deterministic to recognize that reality is an opinion and not a fact. [Above quotations from E. Dyson, p. 11f]

In the future I see [virtual reality] as a medium of communication where people improvise worlds instead of words, making up dreams to share. It would be a reality conversation, an objective form of the Jungian dream, the collective unconscious. You might call [virtual reality] the collective conscious.

Once you get a taste for making up your own reality, you don't go in for passive realities anymore.

Sometimes I think we've uncovered a new planet, but one that we're inventing instead of discovering. We're just starting to sight the shore of one of its continents. Virtual reality is an adventure worth centuries. [Above quotations from Lanier, p. 116f]

Mark Weiser, to the contrary, says that what is happening with electronic technology is "diametrically opposed to our vision...of virtual reality." What is happening instead is that "ubiquitous computers" are "fading into the background" and becoming invisible (just as Arthur C. Clarke predicted they would almost thirty years ago). "Indeed, the opposition between the notion of virtual reality and ubiquitous, invisible computing, is so strong that some of us use the term 'embodied virtuality' to refer to the process of drawing computers out of their electronic shells" and placing them in everything--cars,

buildings, appliances, human bodies. "By pushing computers into the background, embodied virtuality will make individuals more aware of the people on the other end of their computer links" and unaware of the computers themselves. " There is more information available at our fingertips during a walk in the woods than in any computer system, yet people find a walk among trees relaxing and computers frustrating. Machines that fit the human environment instead of forcing humans to enter theirs will make using a computer as refreshing as taking a walk in the woods." [Weiser, p. 94f, 104]

[W]e don't understand the game we're playing. I'm not so sure...that the game will settle down. In a world economy with no world body politic, it could be that upheaval in world communications will continue to accelerate at exactly the rate of technology growth. Engines without governors rev up and explode; economies without theories may do the same. The structure of the world information economy is being determined by traffic rather than policy in part because there's no world body politic, in part because there's no workable theory of what's happening. The wired world is a teenager with a new car, taking dumb risks, finding new freedoms. It's a privilege to be around self-discovery like that, but grueling, and sometimes tragic [Brand, p. 248f].

Does Kaoru Yamaguchi have the key to the economic theory we need [Yamaguchi, 1986, 1990]? Are Harlan Cleveland and his cohorts inventing the global "body politic" that this euphoric post-Cold War world otherwise disdains [Cleveland]?

9. Whether the challenges of embodied virtuality, virtual reality, artificial intelligence, and artificial life are being addressed presently or not, they are small potatoes compared to the power of genetic and molecular engineering which is emerging. Electronic technology is based on the manipulation of the electron. Genetic and molecular engineering manipulates everything else [Baskin, Drexler, F. Dyson, Foss & Rothenberg, Hameroff, Porter & Rossini, Webber, Yoxen & de Martino, Yoxen]. This is "information" of the highest order, leading to an "information society" far beyond that which even Yamaguchi or Masuda envision. Given the increased pace of research and development of these technologies, there is good reason to believe that, in the early 21st Century, the electronic "information society" will be replaced by societies based on genetic and molecular engineering [Bishop & Waldholz, Drexler & Peterson]. Certainly this portends forms and processes of "participation" and "democracy" that are presently beyond my ability to imagine in sufficient detail.

But I have no doubt that it is on these technologies and their consequences that the members of the WFSF, and all futurists genuinely concerned about the future of participation and democracy, should be focussing their attention, and not on the forms and problems of the present, on which our members dearly love to squander their concern (I often feel we should change the name of our organization from The World Futures Studies Federation to The Present Problems of the World Debating Society).

But you don't have to take my word for it. Consider what Eric Drexler, founder of The Foresight Institute, concludes about nanotechnologies:

Eons of evolution and millennia of history have prepared this challenge and quietly presented it to our generation. The coming years will bring the greatest turning point in the history of life on Earth. To guide life and civilization through this transition is the great task of our time.

[Drexler, p. 239]

That is the task to which we each should turn our efforts.

Will you take me for Chicken Little, or The Little Red Hen, if I inquire:
Who will help me thresh the corn?

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